Chapter 2: Occupational Health | Section 2.06 Health Hazard Assessments

Applicability: Reclamation Employees, Facilities, Operations, and Contractors

Health Hazard Assessments Section 2.06

1. Scope

This section establishes guidelines for Bureau of Reclamation facilities conducting health hazard assessments, identifying hazardous materials and environments, identifying risk factors, analyzing, and evaluating the risks associated with the hazards, and providing controls to protect employees from potential exposures.

2. General Requirements

Reclamation's goal is to prevent employee occupational injuries and illnesses by anticipating, recognizing, evaluating, and controlling occupational health and safety hazards. Facility health hazard assessments shall be conducted to help:

- create awareness of hazards and risks,
- identify who may be at risk (e.g., employees, visitors, contractors, the public),
- identify the route of entry of hazardous materials to an employee, measure the dose, and evaluate toxicity to an employee over a specified time,
- confirm if existing control measures or newly implemented ones reduce or eliminate the hazard, and
- prioritize hazards and their control measures.

3. Responsibilities

a. Area Office Managers

 Shall provide the necessary resources to complete health hazard assessments and implement feasible control strategies to eliminate or reduce employee exposures.

b. First-Line Supervisors

- Shall ensure their employees receive training according to paragraph 2.06.4, Training, of this Reclamation Safety and Health Standard (RSHS) on the health hazard assessment process and ensure their participation.
- Shall coordinate with the regional/local industrial hygienist (IH) and the safety manager/ safety specialist to perform health hazard assessments, training, and exposure monitoring as necessary.
- Shall ensure that findings from health hazard assessments are reviewed with affected employees and incorporated into job hazard analyses (JHAs) as appropriate.
- Shall ensure engineering controls and mitigation techniques are utilized properly and functioning as intended in work areas.
- Shall ensure their employees complete required medical examinations.

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• Shall notify the IH or safety specialist when there is a significant change to a work process (new work procedures, equipment, or a new hazard) so a health hazard assessment can be completed.

c. Employees

- Shall complete the training requirements in paragraph 2.06.4.
- Shall actively participate in health hazard assessments by wearing exposure monitoring equipment, providing input on job tasks and operations, and providing information on areas where potential exposures may exist.
- Shall review the JHA prior to conducting a job task and discuss any unaddressed concerns/hazards with the supervisor.
- Shall immediately notify their supervisor of any signs or symptoms related to any hazardous materials used in their job tasks or from environmental exposures.
- Shall immediately notify their supervisor when engineering controls or other methods used for controlling potentially hazardous environments are malfunctioning.
- Shall immediately notify their supervisor when their personal protective equipment (PPE) is damaged so it may be repaired or replaced.

d. Regional Safety Managers

Shall support a region-wide health hazard assessment program to ensure that an effective process is in place to eliminate or reduce occupational health hazards and employee exposures.

e. Regional/Local Industrial Hygienists

- Shall coordinate with first-line supervisors and safety managers/safety specialists to conduct health hazard assessments that includes information provided in paragraph 2.06.2, General Requirements, and paragraph 2.06.8, Safe Practices of this RSHS.
- Will conduct exposure assessments for individual work task or agent exposures. In this process the industrial hygienist will determine the appropriate occupational exposure limit (OEL) for the agent. American Conference of Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) will be used when technically feasible and most protective; otherwise, use the next lowest achievable National Institute for Occupational Safety and Health recommended exposure limits or OSHA permissible exposure limits (PELs) as feasible.
- Shall use health hazard assessment results to determine additional industrial hygiene program requirements, implementation of control strategies to reduce employee exposures, employee training, and appropriate medical surveillance requirements.
- Shall conduct or oversee monitoring for employee exposures to hazardous materials or environments.
- Shall ensure employees receive monitoring results within 15 days of receipt of the laboratory report and will review the results with the employee and the first-line

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supervisor to ensure they understand the results, any actions required based on the results, and will maintain confidentiality with any employee medical information.

- Shall ensure the appropriate human resources officer receive employee monitoring results to place in the employee's medical folder.
- Shall provide input, language, and guidance for occupational health provisions in contracts.
- Shall provide guidance on design, selection, implementation, and testing of engineering controls to limit exposure during job tasks and operations as requested.

f. Safety managers and Safety Specialists

- Shall work with first-line supervisors, regional/local IH, and field locations to conduct health hazard assessments.
- Shall complete the training requirements in paragraph 2.06.4

g. Reclamation Industrial Hygienist

- Shall develop strategies to address Reclamation-wide health hazard issues related to harmful or potentially harmful employee exposures.
- Shall provide technical assistance, education, direction, and support to regional/local IHs for health hazard assessments as requested.
- Shall work with the regional IHs to develop a Reclamation-wide electronic system for maintaining health hazard assessment results.

h. Human Resources Officers

 Shall maintain received medical examination results, clearance documentation, and employee exposure monitoring records in the employee's medical folder according to 29 CFR 1910.1020(d)(1), Access to Employee Exposure and Medical Records, the Privacy Act of 1974 (P.L. 93-579), and provide the regional/local IH, local safety specialist/manager, and/or first-line supervisor with the clearance results as requested.

4. Training

a. Initial Training

First-line supervisors, in coordination with the safety manager/safety specialist and/or the region IH, shall coordinate employee training for conducting health hazard assessments that includes the following minimum elements:

- benefits of performing health hazard assessments,
- how to identify tasks or environments that have the potential for employee exposure to hazardous materials,
- ways to measure and identify employee exposure and risks associated with job tasks,
- methods prioritizing actions to reduce employee exposures,

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- use of the hierarchy of controls to select the appropriate controls to reduce employee exposures,
- methods to assess the performance of the controls as it relates to employee exposures,
- importance of using consistent assessment techniques and maintaining work site data, and
- retention requirements for employee medical records and workplace exposure.

b. Refresher Training

The first-line supervisor shall determine the frequency of refresher training in consultation with the safety manager/safety specialist and the regional or local IH.

c. Recordkeeping

The first-line supervisor shall ensure training records are kept in the Department of the Interior's approved repository and managed in accordance with the Information Management Handbook as referenced in Reclamation Manual Directive and Standard, Information Management (RCD 05-01).

5. Hazard Identification, Assessment, and Safety Measures

a. Hazard Identification and Assessment

The first-line supervisor, in coordination with the safety manager/specialist and the regional/local IH, shall assess work areas reviewing job tasks and work areas for potential employee exposures to hazardous materials, environments, and determine the appropriate controls, equipment, and PPE to reduce employee exposures.

- Health Hazard Assessment Process. The assessment process shall include the following minimum elements:
 - review processes in work areas,
 - anticipate and document any recognized hazards,
 - involve employees when reviewing job tasks, processes, and hazardous materials used in work areas,
 - identify and monitor exposures and risks,
 - o evaluate environmental conditions (e.g., heat, cold, noise),
 - identify and recommend feasible environmental controls,
 - implement hazard controls,
 - o train employees on new procedures and/or controls,
 - develop and implement procedures to evaluate new processes and equipment,
 - develop and implement procedures to confirm controls are working to reduce exposures, and
 - when and where job plans are utilized, a copy of the health hazard assessment, where required, will be attached to the job plan.

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b. Safety Measures

- Hierarchy of Controls. The first-line supervisor, in coordination with the safety manager/safety specialist and the regional/local IH, shall implement the appropriate controls, below, to reduce potential employee exposure in their work areas:
 - eliminate the hazardous materials used, or reduce quantities or concentrations,
 - substitute to a less hazardous material or procedure.
 - o identify and implement engineering controls to prevent or reduce exposures (e.g., local exhaust ventilation, physical containment, real-time sensors and monitors) and ensure the equipment is functioning properly,
 - o implement administrative controls and work procedures to prevent exposures (e.g., alter how the job tasks or procedures are done, reduced working times in high exposure areas, install signs, train employees on specific job procedures),
 - o reduce the work time for tasks with potential exposures to hazardous materials and physical hazards (e.g., noise, vibration, temperature, radiation),
 - schedule job tasks where there is a potential for exposing other employees in a way that minimizes exposure for all, and
 - o provide PPE, as the last resort, for employees and train them accordingly.

6. Pre-job Briefing and Planning Requirements

a. Job Hazard Analysis

The first-line supervisor, in coordination with the safety manager/specialist and the regional/local IH, shall address the appropriate elements listed in paragraph 2.06.5.b, Safety Measures of this RSHS, in JHAs where employee exposure is a potential risk factor.

7. Personal Protective Equipment

First-line supervisors, in coordination with the safety manager/safety specialist and the regional/local IH, shall provide and train employees in the use of required PPE to minimize exposure to hazard in the work area.

a. Respiratory Protection

Employees shall use respiratory protection and adhere to the requirements in RSHS Section 2.08, Respiratory Protection, when:

- engineering and work practice controls are not adequate to reduce exposures below the action level (AL) or below 50 percent of the OEL, and
- interim protection measures are in place during a health hazard assessment, and
- exposure to a Federal OSHA-regulated substance exceeds the AL or OEL.

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b. Additional PPE Selection

Refer to RSHS Section 1.07, Personal Protective Equipment, for selection, use, and maintenance requirements.

8. Safe Practices

a. Air Contaminant Control Plan

The regional/local IH, in coordination with the first-line supervisor and the safety manager/safety specialist, shall implement an air contaminant control plan when personal or area air monitoring results conducted during a health hazard assessment equal or exceed a Federal OSHA regulated AL or 50 percent of the OEL if an AL does not exist. The plan shall include the following minimum elements:

- means to reduce exposures levels using relevant controls outlined in paragraph 2.06.5.b., Hierarchy of Controls of this RSHS,
- periodic air monitoring to ensure the controls implemented are effective,
- procedure or guidelines to ensure JHAs for operations with air contaminant exposure include control measures and PPE, and
- guidelines for any medical surveillance program requirements.

b. Noise Control Plan

The regional/local IH in coordination with the first-line supervisor and the safety manager/specialist shall implement a noise control plan when stationary or portable sources expose employees to 85 decibels (dBA) or greater. The plan shall include the following minimum elements:

- conducting noise surveys and identifying sources that expose employees to 85 dBA or
- identifying control measures for sources producing sound levels to 85 dBA or greater,
- periodic noise monitoring to ensure the controls implemented are effective,
- procedures to ensure JHAs for operations with noise levels to 85 dBA or greater include updated control measures and PPE,
- means to reduce exposures levels using relevant controls outlined in paragraph 2.06.5.b., and
- implement a hearing loss prevention program outlined in RSHS Section 2.07, Hearing Loss Prevention Program.

c. Medical Surveillance

Notification of Monitoring Results. The regional/local IH shall notify the first-line supervisor and affected employee(s) and review the monitoring results within 15 days after receiving the report, covering the following elements, as a minimum:

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- o employee name, job title, and work location,
- o job task(s), and duration monitored,
- o employee monitoring results compared to the PEL or AL if applicable, and
- explanation of results and recommendations to reduce potential exposure (if applicable).
- Medical Surveillance Program. The regional/local IH, in coordination with the first-line supervisor and the safety manager/safety specialist, shall review health hazard assessments and monitoring results that would potentially require placing employees in a medical surveillance program when employee monitoring results meet or exceed specific exposure limit requirements outlined in Federal OSHA regulations for substances requiring medical surveillance (e.g., lead, asbestos, silica, noise, suspect carcinogens).

d. Potable Water

An adequate potable water supply must be provided in all places of employment. Cool, potable drinking water must be provided. Supply drinking water from sources that meet the quality standards published in the U.S. Public Health Service Drinking Water Standards published in 42 CFR Part 72 approved for drinking purposes by the State or local authority having jurisdiction. Keep potable containers used to dispense drinking water tightly closed, equipped with a dispensing tap labeled as "DRINKING WATER," and in a sanitary condition. Water must not be dipped from any potable water container. Drinking directly from the container is prohibited unless a properly installed drinking fountain with a guarded orifice is provided. Do not use containers to dispense or distribute drinking water for any other purpose. Provide fountain-type dispensers or one-use paper cups at each dispenser. The Government Accountability Office (GAO) prohibits the purchase of one-use paper cups for employees in "office settings" as the GAO has determined drinking cups in office settings to be "personal items." Within the Bureau of Reclamation, these one-use paper cups will most commonly be used in remote, isolated field facilities and larger facilities where piped-in potable water is not readily available. These are not considered office settings. Where non-potable water dispensers are present, they must be posted as follows:

CAUTION WATER UNSAFE FOR DRINKING, WASHING OR COOKING

e. Washing Facilities

Provide adequate washing facilities for all employees to maintain healthful and sanitary conditions. Such facilities must be located within, or near the worksite. Maintain each wash facility with either hot and cold or tepid water, soap, and an individual means of drying.

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f. Food Consumption

Designate a clean area for consuming food and drink at each work location. It is prohibited to use restrooms, laboratories, hazardous materials storage areas, industrial shops, or other areas exposed to biological or chemical hazards as breakrooms or food consumption locations.

▲ RSHS Appendix A: Definitions

RSHS Appendix A (<u>Definitions</u>) is available to print at: https://www.usbr.gov/safety/rshs/index.html.

▲ RSHS Appendix B: Additional References and Citations

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